REMARKS

Favorable reconsideration of this application is respectfully requested in view of the following remarks.

At the outset, the undersigned expresses appreciation to Examiner King for his time and attention during the interview that was conducted at the U.S. Patent and Trademark Office on June 17, 2004. The remarks which follow discuss the substance of the interview.

The claims currently at issue in this application are Claims 2-8, with Claim 2 being the only independent claim. None of the claims have been amended by way of this Amendment.

As discussed during the interview, Claim 2 is directed to a braking force distribution control device that comprises a wheel speed detecting means which detects respective vehicle wheel speeds and a road surface μ slope estimating means which estimates the slopes of a coefficient of friction μ between the wheel and a road surface based on the detected wheel speeds. A control means distributes braking forces to the respective wheels based on the road surface μ slopes that are estimated for the respective wheels by the road surface μ slope estimating means. On the basis of the detected wheel speeds, the road surface μ slope estimating means estimates the road surface μ slopes of the braking forces with respect to wheel slip speeds as the road surface μ slopes for the respective wheels. The control means controls a braking torque of the wheel that is the object of control based on the road surface μ slope of the wheel that is an object of control

and the road surface μ slope of a reference wheel among the road surface μ slopes estimated by the road surface μ slip estimating means.

The discussions during the interview focused on the final rejection of Claims 2-8 based on the disclosure in U.S. Patent No. 4,836,618 to *Wakata et al.* in view of the disclosure contained in European Patent No. 0 887 241 to *Yamaguchi et al.*

As explained during the interview, *Wakata et al.* discloses a braking system including an anti-skid control function for preventing the locking of the wheels caused by rapid braking. The anti-skid control function includes lowering the hydraulic pressure to the wheels that are slipping or in a locked state, and increasing the hydraulic pressure to the wheels that can exert more braking force before slipping.

The final Official Action observes that the discussion at column 10, line 60 – column 11, line 5 of *Wakata et al.* describes a control means that controls the braking torque of a wheel which is an object of control on the basis of a reference wheel. However, as discussed during the interview, *Wakata et al.* does not disclose such a control means.

The discussion in column 10 of *Wakata et al.* describes calculating a target front wheel braking hydraulic pressure P_{F^*} as well as a target rear wheel braking hydraulic pressure P_{R^*}. Beginning at the bottom on column 10, *Wakata et al.* points out that to achieve the desired braking force distribution for the wheels, the target braking hydraulic pressure for each of the wheels is further corrected so that the slip ratios of the wheels are equal to each other or so that the slip ratio of the rear wheels is smaller than the slip ratio of the front wheels. This further correction of the braking hydraulic pressure for each of the wheels is carried out following the operational process shown in Fig. 6 and described in column 11 of *Wakata et al.* As explained

during the interview, this process involves reading the wheels speeds of the front and rear wheels (step 1000), reading the vehicle acceleration (step 1001), reading the hydraulic pressure in each of the wheels and in the master cylinder (step 1002) calculating a vehicle speed based on the respective wheel speeds and the vehicle acceleration (step 1003), obtaining a slip ratio using the respective wheel speeds read in step 1000 and the vehicle speed calculated in step 1003 (step 1004) and then determining a correction master cylinder hydraulic pressure as a function of the hydraulic pressure in the master cylinder and the vehicle acceleration (step 1005). Then, using equations (9) and (10) set forth near the bottom on column 10 of *Wakata et al.*, the front wheel target braking hydraulic pressures and the rear wheel target hydraulic pressures are calculated (step 1006). These calculated target braking hydraulic pressures are corrected in accordance with the magnitude of each of the slip ratios determined in step 1004 to obtain correction braking hydraulic pressures (step 1007). The correction braking hydraulic pressures are then respectively compared in with the hydraulic pressure in the master cylinder (step 1008). If the respective correction braking hydraulic pressures are greater than the hydraulic pressure in the master cylinder, the pressure control valve is turned off (step 1009). Otherwise, the pressure control valve is turned on (step 1010).

Thus, as explained during the interview and recognized by Examiner King, even if one were somehow motivated to combine the disclosures in Wakata et al. and Yamaguchi et al. as proposed in the Official Action, the result would not be a braking force distribution control device which includes, in combination with the other features recited in Claim 2, control means that controls the braking torque of the wheel which is an object of control on the basis of the road surface μ slope of the

wheel which is an object of control and the road surface μ slope of a reference wheel among the road surface μ slopes estimated by the road surface μ slope estimating means. Indeed, as specifically set forth in lines 57-62 of column 11 of *Wakata et al.*, the hydraulic pressure control is performed independently for each of the wheels.

It is thus submitted that independent Claim 2 is allowable. Claims 3-8 are also allowable at least by virtue of their dependence upon allowable independent Claim 2

It is believed that this application is in condition for allowance and such action is earnestly solicited.

Should any questions arise in connection with this application, or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application, the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

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